



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,239	09/03/2003	Klaus Hirschfeld	KOA 0236 PUS (R 1396)	4888
22045	7590	03/25/2011		
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER ILAN, RUTH	
			ART UNIT 3616	PAPER NUMBER
			MAIL DATE 03/25/2011	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/654,239

Applicant(s)

HIRSCHFELD ET AL.

Examiner

Ruth Ilan

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-12, 15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 7, 13, 14 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/3/2003
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 8,9,10, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nicot (FR 2 774 740 A1) cited by the Applicant. Please note that the Examiner is relying on US 6,427,542 B1) for translation purposes. Nicot teaches a steering wheel (5) for a motor vehicle having a front side with a center and a back side. A steering wheel module supports electrical/electronic subassemblies (for instance airbag assembly 6 and torque measurement (7,8) and is inserted from the front side into the center of the steering wheel (see for instance Figure 19) and the lower end of the module forms a torsion module of a torque detection device (7) for a steering power assist system (see col. 1, line 13.) The torsion module is operable to receive and be attached to a steering spindle (2) (via splined piece 16, see col. 7, lines 27-29.) Regarding claim 8, the electronic subassemblies include an analysis device (8) for evaluating the torque exerted on the steering wheel as detected by the torsion module. Regarding claim 9, an airbag unit is included.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicot (FR 2 774 740 A1) cited by the Applicant. Please note that the Examiner is relying on US 6,427,542 B1) for translation purposes. Nicot is discussed above, and the embodiment discussed, that of Figures 16-20, which is the one that specifically discusses a module inserted from the front side, does not, with respect to claims 2 and 11, teach that the torsion module is a spoke wheel that has a rim that concentrically surrounds the hub piece through a plurality of flexible spokes. Nicot teaches in other embodiments, for instance the one disclosed in Figure 10, that the torsion module is a spoke wheel having a hub piece (16) that is operable to receive and be attached to the steering spindle and having a rim (14a) that concentrically surrounds the hub piece through a plurality of flexible spokes (18a.) Regarding claim 3 and 12, the rim includes attachment holes that run in an axial direction (21.) Additionally, in Figure 25, a generic embodiment teaches that the steering wheel module is inserted from the front. Because both Figure 25 and Figure 10 teach steering wheel arrangements with torsion modules, it would have been obvious to one having ordinary skill in the art at the time of the invention to substitute one type of mounting for the other, and mount the module of Figure 10 in the manner disclosed in Figure 25 to achieve the predictable result of a completely mounted system.
5. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicot (FR 2 774 740 A1) cited by the Applicant (Please note that the Examiner is relying

on US 6,427,542 B1) for translation purposes) in view of Lambson (US 6,269,702 B1.) Nicot is discussed above (see item 4) and differs from the claimed invention because Nicot does not teach that the spokes include strain gauges, the sensor is instead a Hall effect sensor. Lambson teaches it is well known in the torsion sensor art to include strain gauges located on the spokes (42, see also col. 3, lines 45-59.) Because both Nicot and Lambson teach torsion sensors, it would have been obvious to one having ordinary skill in the art at the time of the invention to substitute one type of torsion sensor for the other, to obtain the predictable result of sensing torsion.

Allowable Subject Matter

6. Claims 4, 5, and 7 and 13, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the attached PTO 892 teach steering wheels with module mountings of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 571-272-6673. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-7742. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ruth Ilan
Primary Examiner
Art Unit 3616

/Ruth Ilan/
Primary Examiner, Art Unit 3616